



HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
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June 18, 2015

TECHNICAL STAFF REPORT

Petition Accepted on April 14, 2015
Hearing Examiner Hearing of July 6, 2015

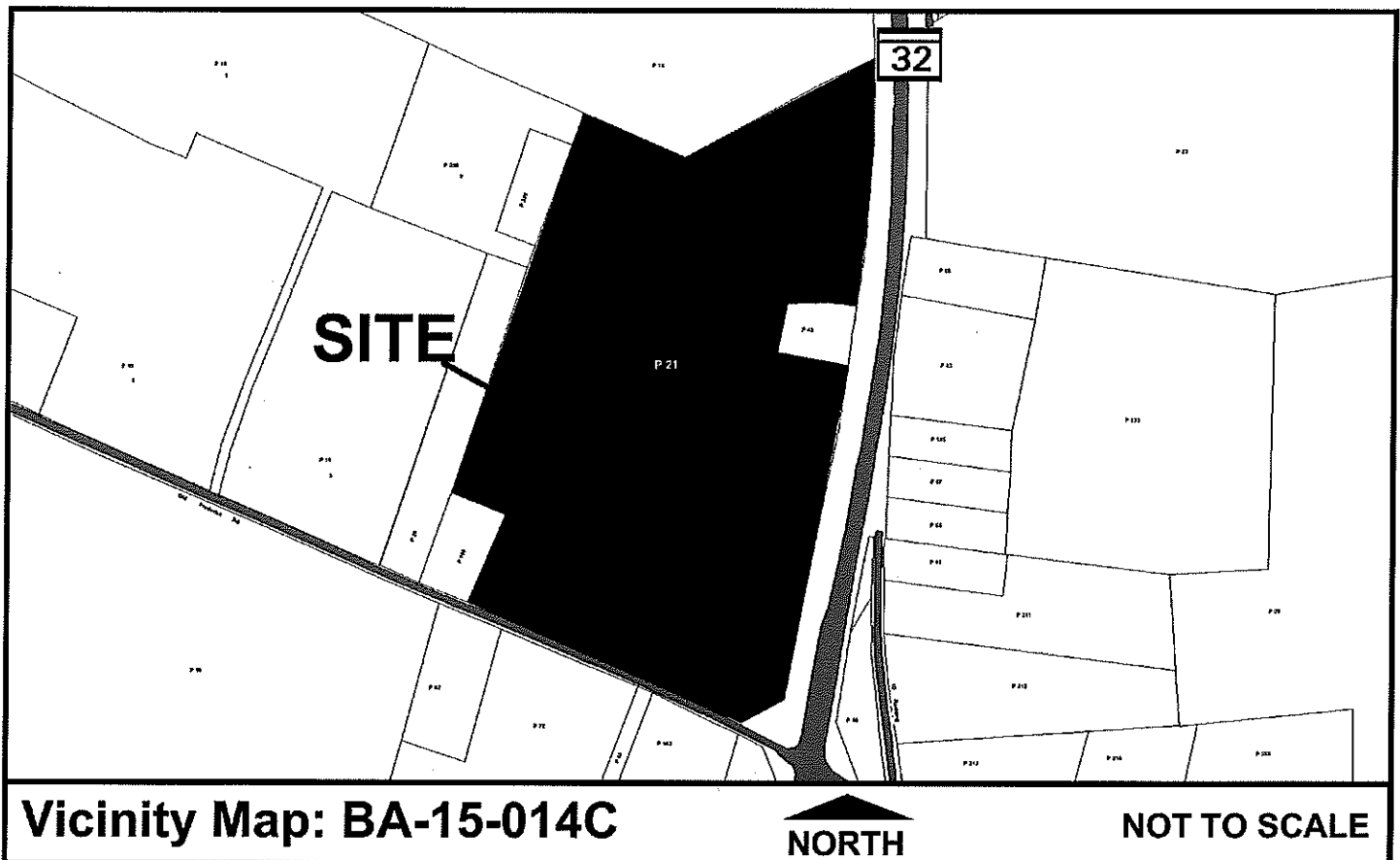
Case No./Petitioner: BA-15-014C Constellation Solar Maryland MC, LLC

Request: Conditional Use for a Commercial Solar Facility (Section 131.0.N.52)

Location: Third Election District
Northwest corner of Route 32 and Old Frederick Road
Tax Map 9, Grid 23, Parcel 21; 1740 Route 32 (the "Property")

Area of Site: 37.24 acres

Zoning: RC-DEO (Rural Conservation: Density Exchange Option)



I. CONDITIONAL USE PROPOSAL

The Petitioner proposes a new 5.4 megawatt DC Commercial Solar Facility on the Property. The site is zoned RC-DEO and is about 37.24 acres. Approximately 20.65 acres of the site will be used as a Commercial Solar Facility because a portion of the site is encumbered by forest and non-tidal wetlands. The Petitioner's proposal consists of 17,700 solar panels in strings of 18, and would supply renewable energy to the power grid for the region.

According to the petition, the present use of the Property is residential and farming. Under the proposal, the existing single-family detached structure will be removed, and farming will cease on the property. This petition states that the Commercial Solar Facility would operate continually except that they will be de-energized during prolonged periods when sunlight is not present. The petition also states that the panels and inverters are no greater than 12 feet in height. There are no employees.

All structures and uses, including perimeter fencing and solar arrays, will maintain at least a 50-foot setback from all property lines. Additionally, a 'Type B' landscaping buffer will be established along the east side and the south side of the property. The north side of the conditional use area abuts a large forested area. A 'Type C' landscaping buffer will be established on the west side of the conditional use area.

The solar arrays are depicted on the plan in the middle and southern portion of the property. The proposed fencing is set back at least 50 feet from all property lines.

II. BACKGROUND INFORMATION

A. Site Description

The irregularly-shaped Property fronts approximately 1,800 feet on the west side of Maryland Route 32 and approximately 900 feet on the north side of Old Frederick Road. It is improved with a single-family detached structure which is proposed to be removed.

A tree line runs along most of the Property frontage along Route 32, and along a portion of the frontage on Old Frederick Road. An existing driveway is located on the eastern side of the property leading the single-family detached structure. The middle and southern portions of the site are comprised of a large field. The topography of the field is slightly hilly with the highest point being approximately in the middle of the field, and gently sloping downward to the northwest and the southeast. The northern portion of the Property is completely forested.

B. Vicinal Properties

Adjoining properties to the north, south, east, and west are also zoned RC-DEO.

Parcel 18, a 90 acre parcel, adjoins the north side of the Property. This parcel is improved with a single-family detached dwelling and what appears to be several farm buildings. This parcel is encumbered with a purchased Agricultural Preservation Easement.

Parcel 339, a 1 acre parcel, adjoins the west side of the Property. This parcel is improved with a single-family detached dwelling.

Parcel 290, Lot 2, a 5.07 acre lot, also adjoins the west side of the Property. This lot appears to be unimproved. This parcel is encumbered with a purchased Agricultural Preservation Easement.

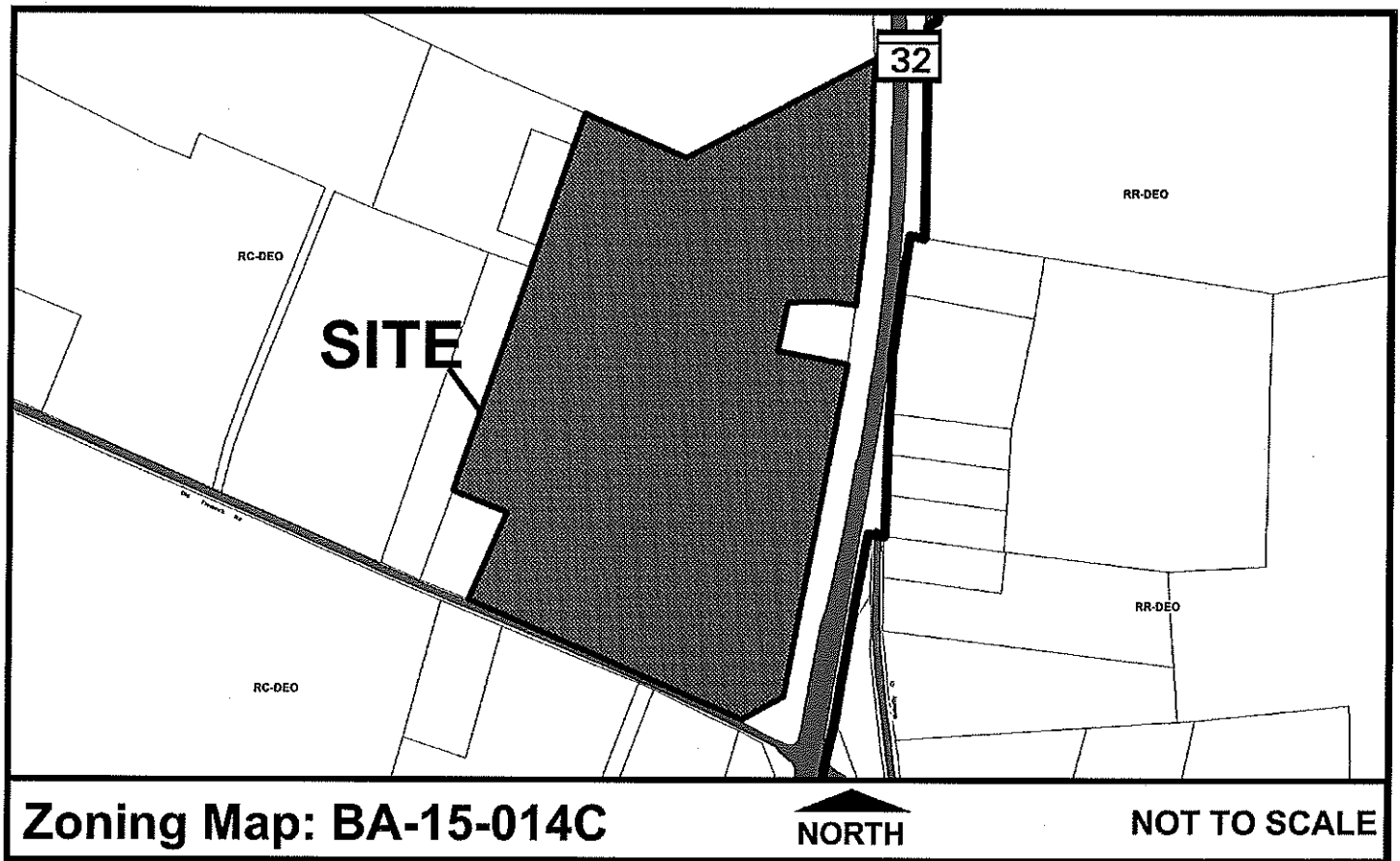
Parcel 20, a 3.025 acre lot, adjoins the west side of the Property. This parcel is improved with a single-family detached dwelling and several outbuildings.

Parcel 156, a 1.03 acre parcel, adjoins the southwest side of the Property. This parcel is improved with a single-family detached dwelling.

Parcel 42, a 1.53 acre parcel, adjoins the east side of the Property. This parcel is improved with a single-family detached dwelling.

Across Maryland Route 32 to the east, properties range from approximately 1.2 acres to 105.2 acres in size. All of these lots are improved with single-family detached dwellings, and the 105.2 acre parcel (Parcel 23) is encumbered with a purchased Agricultural Preservation Easement. All of the lots across Maryland Route 32 to the east are zoned RR (Rural Residential).

Across Old Frederick Road to the south, properties range from approximately 1.98 acres to 141.02 acres in size. All of these lots are improved with single-family detached dwellings, and Parcel 16 (141.02 acres) and Parcel 72 (26.58 acres) are both encumbered with purchased Agricultural Preservation Easements. All of the lots across Old Frederick Road to the south are zoned RC (Rural Conservation).



C. Roads

Maryland Route 32 is an intermediate arterial road, has two travel lanes, and has an approximately 55 foot paving width within a variable width right-of-way. The posted speed limit is 55 miles per hour.

Old Frederick Road is a major collector road, has two travel lanes, and has an approximately 25 foot paving width within a variable width right-of-way. The posted speed limit is 30 miles per hour.

According to the Maryland State Highway Department, the stretch of Route 32 located 0.10 miles south of MD851 had an average traffic volume of 23,793 AADT (annual average daily traffic) in 2013.

D. Water and Sewer Service

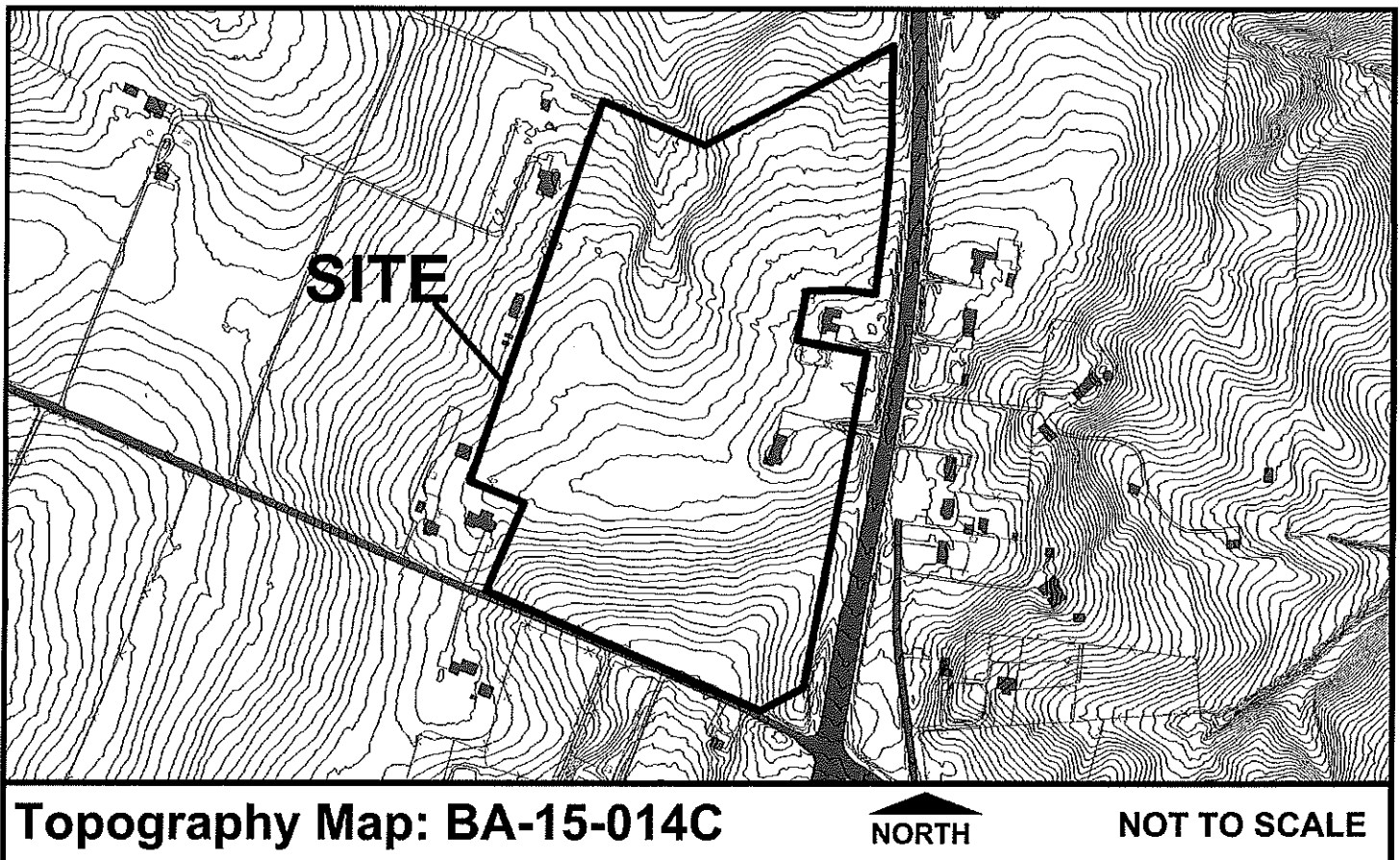
The Property is not within the Metropolitan District and is within the No Planned Service Area of the Howard County Water and Sewerage Master Plan according to the Howard County Geographic Information System Interactive Mapping Application. The Property is served by private well and septic facilities.

E. General Plan

The Property is designated as Rural West on the Designated Place Types Map of PlanHOWARD 2030.

Maryland Route 32 is depicted as an intermediate arterial road on the Functional Road Classification Map of PlanHOWARD 2030.

Old Frederick Road is a major collector road on the Functional Road Classification Map of PlanHOWARD 2030.



F. Agency Comments

See attached comments on the proposal from the following agency:

1. State Highway Administration

The following agencies had no objections to the proposal:

1. Department of Recreation and Parks
2. Department of Inspections, Licenses, and Permits
3. Development Engineering Division
4. Department of Fire and Rescue Services

III. ZONING HISTORY

A. WP-15-129, Constellation Solar Farm

Action: A waiver petition requesting a waiver to the following sections of the Howard County Subdivision and Land Development Regulations was requested for the Commercial Solar Facility:

Section 16.1201(n) which defines "Net Tract Area," and **Section 16.1202(b)(1)(i)** which exempts a subdivision, site development or grading permit for development on land which is less than 40,000 square feet from providing a declaration of intent. A waiver to these sections was requested to allow the limit of disturbance to serve as the Net Tract Area when determining the forest conservation easement obligation.

Status: This waiver petition was **deferred** on May 5, 2015, pending the applicant addressing comments and concerns generated by the Division of Land Development and the Development Engineering Division.

IV. EVALUATION AND CONCLUSIONS

A. Evaluation of petition according to Section 131.0.B. of the Zoning Regulations (general criteria for Conditional Uses):

1. The proposed Commercial Solar Facility use is reasonably compatible with surrounding RR and RC zoned properties. The Property's location on a intermediate arterial road and a major collector road is appropriate for a Commercial Solar Facility since frequent access to the site is not required. Employees will visit the site for an inspection once a month and for mowing and lawn care approximately 2-4 times a year. The proposed Commercial Solar Facility should be adequately screened from the view of vicinal properties and the roadway by perimeter landscaping. The location of the Commercial Solar Facility with respect to streets giving access to the site are such that the use will be in harmony with the land uses and policies indicated in the Howard County General Plan for the district in which it is located.
2. The petition does not address whether dust, fumes, odors, intensity of lighting, vibrations, hazards, or other physical conditions will be greater at the proposed site than it would generally be elsewhere in the same zoning district or other similar zoning district. However, the notes from the pre-submission community meeting do state that "the panels themselves make no noise at all and the system itself will meet all relevant noise regulations. Furthermore, during prolonged periods when sunlight is not present Constellation plans to de-energize the equipment." Based on the information provided by the applicant, and given the intensity and nature of the proposed use, it is unlikely that the impact of adverse effects at the subject site will be greater than it would generally elsewhere in the zone or applicable other zones.

3. The proposed Commercial Solar Facility is approximately 20.65 acres in size. The project area will be enclosed with a fence that will be no greater than 7 feet in height. Provided that landscaping is installed between the proposed fencing and the property line so that the proposed Commercial Solar Facility and the fencing surrounding it are adequately screened from the view of vicinal properties and the roadways, the location, nature, and height of fences and the Commercial Solar Facility are such that the use will not hinder or discourage the development and use of adjacent land and structures more at the subject property than it would generally in the zone or applicable other zones.
4. There is no specific parking requirement for a Commercial Solar Facility. Given that employees will only visit the site for an inspection once a month and for mowing and lawn care approximately 2-4 times a year, the existing parking pad and proposed access roads would be adequate. The petition complies with this section.
5. The existing access point will likely continue to provide safe access with adequate sight distance, based on actual conditions.
6. The Property does have non-tidal wetlands and forested areas; however, all of these areas are located outside of the proposed project area. Therefore, the proposed use will not have a greater potential for adversely impacting environmentally sensitive areas than elsewhere.
7. There are no historic sites or structures in the vicinity of the Property.

B. Evaluation of petition according to Section 131.0.N.52 (Specific Criteria for a Conditional Use for a Solar Facility, Commercial):

A Conditional use may be granted in the RC or RR Zoning Districts for a Commercial Solar Facility, provided that:

1. The land on which the Commercial Solar Facility is proposed may not be in the Agricultural Land Preservation Program and it may not be encumbered by any Environmental Preservation Easements.

The petition meets the criteria of this section.

2. The maximum size of a solar facility shall be 75 acres notwithstanding the size of the parcel. The parcel on which the Commercial Solar Facility is proposed must be a minimum of 10 acres in size.

The parcel that the proposed solar facility will be located on is greater than 10 acres (parcel is 37.23 acres) and the size of the solar facility is less than 75 acres (total acreage of the entire solar facility is approximately 20.7 acres).

3. All structures and uses must meet a minimum 50 foot setback from all property lines.

The petition meets the criteria of this section.

4. No structure or use may be more than 20 feet in height.

The tallest structures proposed with this petition are the two 12 foot tall inverters.

5. A "Type D" landscaping buffer must be provided around the perimeter of the proposed Commercial Solar Facility unless the Hearing Authority determines that an alternative buffer is sufficient.

The biggest complaint that we have received from neighboring property owners related to previously approved Commercial Solar Facilities is the lack of landscape buffering between the facility and neighboring properties. Requiring a "Type D" buffer along all Perimeters that abut properties that contain houses or housing developments and public roadways would help to alleviate community concerns and help to preserve the rural character of this portion of the county.

Eastern Perimeter (Perimeter 1): The petition proposes a "Type B" landscaping buffer for the eastern perimeter of the property. However, a denser "Type D" landscaping buffer should be required for this perimeter. This perimeter abuts a highly trafficked road in the rural western part of the county. Providing a "Type D" landscaping buffer along that perimeter will help to preserve the rural character of this portion of the county. This perimeter also abuts Parcel 42 which contains a single-family detached home, which should also require a denser "Type D" landscaping buffer. Additionally, a "Type D" landscaping buffer should be provided to the south of existing Parcel 42. Currently, there is no landscaping buffer proposed to the south of Parcel 42.

Southern Perimeter (Perimeter 2): The petition proposes a "Type B" landscaping buffer for the southern perimeter of the property. However, a denser "Type D" landscaping buffer should be required for this perimeter. This perimeter abuts a highly trafficked road in the rural western part of the county. Providing a "Type D" landscaping buffer along that perimeter will help to preserve the rural character of this portion of the county.

Western Perimeter (Perimeters 3, 4, & 5): The petition proposes a "Type C" landscaping buffer for the western perimeter of the property. However, a denser "Type D" landscaping buffer should be required for this perimeter because it abuts properties that contain houses or housing developments.

Northern Perimeter: This perimeter abuts a forested area that is approximately 450 feet deep. This existing forested area provides an adequate buffer to the property to the north.

6. All security fencing must be located between the landscaping buffer and the Commercial Solar Facility.

The Plan submitted with the petition depicts all fencing between the landscaping buffer and the Commercial Solar Facility.

7. The systems shall comply with all applicable local, state, and federal laws and provisions.

The petition states that the facility will comply with all applicable local, state, and federal laws and provisions.

8. A Commercial Solar Facility that is no longer used shall be removed from the site within one year of the date that the use ceases.

The Petitioner indicated in the presubmission community meeting notes that they understand that they are obligated to remove the solar units within one year of the date that the use ceases.

9. The premises shall be maintained at all times in a clean and orderly condition, including the care or replacement of plant materials required in the landscaping plan. The responsibility for compliance with this provision shall be with all parties having a lease or ownership interest in the Commercial Solar Facility. The applicant shall provide the Hearing Authority with details regarding maintenance and access for the site.

Employees will visit the site for an inspection once a month and for mowing and lawn care approximately 2-4 times a year. Landscape maintenance will also be provided for the facility in addition to the standard industry guarantees of plant materials which include replacement of dead or dying plants within the first year warranty period. Additionally, the Petitioner plans to utilize native and low maintenance plant species that are appropriate for their environment.

10. A solar collector or combination of solar collectors shall be designed and located to avoid glare or reflection onto adjacent properties and adjacent roadways and shall not interfere with traffic or create a safety hazard.

A supplement to the petition states that the glazed surface of the panels will be oriented toward Old Frederick Road and the intersection of Old Frederick Road and Route 32, where there is a difference in elevation of between 5.75 feet and 24 feet. This difference in elevation, coupled with the slight upward angle of the panel would direct glare away from any adjacent roadways or properties. Additionally, in general, photovoltaic panels are designed to have low reflectivity.

11. The applicant shall agree to register all solar collectors with the Department of Fire and Rescue Services. The registration shall include a map of the solar facility noting the location of the solar collectors and the panel disconnect.

The petition states that the Petitioner understands this requirement.

12. Tree removal shall be minimized and reforestation shall be done in accordance with Section 16.1206 of the County Code.

The petition states that the Petitioner understands this requirement.

13. The applicant shall demonstrate that the solar facility does not harm the scenic characteristics or the view from:

- (I) A public park.
- (II) A national or state designated scenic byway.
- (III) A road listed in the scenic roads inventory adopted under §16.1403 of the County Code;
or
- (IV) A historic structure as defined in § 16.601 of the County Code.

Old Frederick Road is a road listed on the scenic roads inventory. The Property has frontage along 930 feet of this scenic road, and development is proposed along approximately 835 feet of the total frontage. The development along this scenic road frontage includes the entrance to the facility, one inverter structure, perimeter fencing, and photovoltaic panels. The existing character of the scenic roadway consists of agricultural field landscape for most of the frontage with approximately 150 feet of trees, shrubs, and understory brush close to the intersection of Old Frederick Road and Route 32. The proposed Commercial Solar Facility will be located approximately 64 feet off of the edge of road paving on Old Frederick Road. A new 7 foot high chain link fence will be constructed along the perimeter of the proposed facility with a landscape buffer between the fence and Old Frederick Road. The landscape buffer will consist of deciduous and evergreen trees, and will minimize the impact of the facility on the scenic characteristics and view from Old Frederick Road. The proposed entrance to the facility is proposed to minimize visual impact by having a reduced width of 15 feet and using a reinforced turf surface with gravel that meets the criteria for Environmental Site Design and reduces impervious surfaces. The

panels themselves will be placed on existing grades with no proposed mass earthwork operations, limiting disturbance to the area. The panels will be installed at a relatively flat angle that is more parallel to the ground surface, minimizing visual impacts. Finally, existing forest on the northern portion of the Property will remain and would be visible from the Old Frederick Road corridor, further preserving the scenic characteristics and view from Old Frederick Road. The proposed setback from Old Frederick Road, coupled with a new landscaping buffer, maintenance of existing grades, panel position, and keeping the existing forested areas intact will allow the proposal to maintain the scenic characteristics and view from Old Frederick Road.

V. RECOMMENDATION

For the reasons stated above, the Department of Planning and Zoning recommends that the request for a Conditional Use for a Commercial Solar Facility (Section 131.0.N.52) be **GRANTED** subject to the following conditions:

1. The Conditional Use shall be conducted in conformance with and shall apply only to the Conditional Use for a Commercial Solar Facility as described in the petition and as depicted on the Conditional Use plan submitted on April 14, 2015 and as may be revised by the Hearing Authority, and not to any other activities, uses, or structures on the Property.
2. The Petitioner shall install a "Type D" landscape buffer along Perimeters 1,2,3,4, and 5. Additionally, The Petitioner shall install a "Type D" landscaping buffer south of Parcel 42 between the proposed Commercial Solar Facility and Parcel 42.
3. The Petitioner shall comply with agency comments.

 6/19/15
Marsha McLaughlin, Director Date

NOTE: The file is available for public review at the Department of Planning and Zoning Public Information Counter.

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Department of Planning and Zoning
Howard County, Maryland
Recommendations/Comments

Date: May 5, 2015

Hearing Examiner 7/06/15

Planning Board _____ Board of Appeals _____ Zoning Board _____

Petition No. BA 15-014C Map No. _____ Block _____ Parcel _____ Lot _____

Petitioner: _____ Constellation Solar Farm

Petitioner's Address: _____

Address of Property: _____

Return Comments by June 15, 2015 to Public Service and Zoning Administration

Owner: (if other than applicant) _____

Owner's Address: _____

Petition: SEE APPLICATION

To: _____ MD Department of Education – Office of Child Care
_____ 3300 N. Ridge Road, Ste. 190, EC, MD 21043 (Louis Valenti)
_____ Bureau of Environmental Health
_____ Development Engineering Division
_____ Department of Inspections, Licenses and Permits
_____ Department of Recreation and Parks
_____ Department of Fire and Rescue Services
_____ ✓ State Highway Administration
_____ Sgt. Karen Shinham, Howard County Police Dept.
_____ James Irvin, Department of Public Works
_____ Office on Aging, Terri Hansen (senior assisted living)
_____ Police Dept., Animal Control, Deborah Baracco, (kennels)
_____ Susan Fitzpatrick, Health Dept. (Nursing & Res. Care)
_____ Land Development - (Religious Facility & Age-Restricted
Adult Housing)
_____ Housing and Community Development
_____ Economic Development
_____ Route 1 Cases – DCCP – Dace Blaumanis
_____ Telecommunication Towers – Josh Levy (Comm. Dept.)

COMMENTS:

Close existing Access on Sykesville Rd (MD 32) once
proposed access from Old Frederick Rd is constructed.

MAY 27 2015

Eric Ahrens